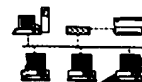


Wontach

#11

BIOTECHNOLOGY
SYSTEMS
BRANCH



RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following CRF diskette:

Application Serial Number:

09/380,377

Art Unit / Team No. :

1632

Date Processed by STIC:

2/29/2000

THE ATTACHED PRINTOUT EXPLAINS THE ERRORS DETECTED.

PLEASE BE SURE TO FORWARD THIS INFORMATION TO THE APPLICANTS BY EITHER:

1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANTS ALONG WITH A NOTICE TO COMPLY or,

2) CALLING APPLICANTS AND FAXING THEM A COPY OF THE PRINTOUT WITH A NOTICE TO COMPLY

THIS WILL INSURE THAT THE NEXT SUBMISSION RECEIVED FROM THEM WILL BE ERROR FREE.

IF YOU HAVE ANY FURTHER QUESTIONS, PLEASE CALL:

MARK SPENCER 703-308-4212

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MAR 19 2000
TC 1000 MAIL ROOM

Raw Sequence Listing Error Summary

#11
L. Tyson
03/2000

ERROR DETECTED SUGGESTED CORRECTION

SERIAL NUMBER: 09/382,377

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 _____ Wrapped Nucleic
The number/text at the end of each line "wrapped" down to the next line.
This may occur if your file was retrieved in a word processor after creating it.
Please adjust your right margin to .3, as this will prevent "wrapping".
- 2 _____ Wrapped Aminos
The amino acid number/text at the end of each line "wrapped" down to the next line.
This may occur if your file was retrieved in a word processor after creating it.
Please adjust your right margin to .3, as this will prevent "wrapping".
- 3 _____ Incorrect Line Length
The rules require that a line not exceed 72 characters in length. This includes spaces.
- 4 _____ Misaligned Amino Acid Numbering
The numbering under each 5th amino acid is misaligned. This may be caused by the use of tabs between the numbering. It is recommended to delete any tabs and use spacing between the numbers.
- 5 _____ Non-ASCII
This file was not saved in ASCII (DOS) text, as required by the Sequence Rules.
Please ensure your subsequent submission is saved in ASCII text so that it can be processed.
- 6 _____ Variable Length
Sequence(s) _____ contain n's or Xaa's which represented more than one residue.
As per the rules, each n or Xaa can only represent a single residue.
Please present the maximum number of each residue having variable length and indicate in the (ix) feature section that some may be missing.
- 7 _____ PatentIn ver. 2.0 "bug"
A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequence(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence.
- 8 _____ Skipped Sequences (OLD RULES)
Sequence(s) _____ missing. If intentional, please use the following format for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X:
(i) SEQUENCE CHARACTERISTICS:(Do not insert any headings under "SEQUENCE CHARACTERISTICS")
(x1) SEQUENCE DESCRIPTION:SEQ ID NO:X:
This sequence is intentionally skipped

Please also adjust the "(iii) NUMBER OF SEQUENCES:" response to include the skipped sequence(s).
- 9 _____ Skipped Sequences (NEW RULES)
Sequence(s) _____ missing. If intentional, please use the following format for each skipped sequence.
<210> sequence id number
<400> sequence id number
000
- 10 _____ Use of n's or Xaa's (NEW RULES)
Use of n's and/or Xaa's have been detected in the Sequence Listing.
Use of <220> to <223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
- 11 _____ Use of <213>Organism (NEW RULES)
Sequence(s) _____ are missing this mandatory field or its response.
- 12 _____ Use of <220>Feature (NEW RULES)
Sequence(s) _____ are missing the <220>Feature and associated headings.
Use of <220> to <223> is MANDATORY if <213>ORGANISM is "Artificial" or "Unknown"
Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 6/01/98, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of new Rules)
- 13 _____ PatentIn ver. 2.0 "bug"
Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing).
Instead, please use "File Manager" or any other means to copy file to floppy disk.

PAGE: 1

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/380,377

1632

DATE: 03/02/2000
TIME: 14:39:52

Input Set: I380377.RAW

This Raw Listing contains the General Information
Section and up to first 5 pages.

1 <110> APPLICANT: BULLEID, NEIL J
2 <120> TITLE OF INVENTION: PROCOLLAGEN ASSEMBLY
3 <130> FILE REFERENCE: 39-189
4 <140> CURRENT APPLICATION NUMBER: US/09/380,377
5 <141> CURRENT FILING DATE: 1999-09-16
6 <150> EARLIER APPLICATION NUMBER: 9704305.3
7 <151> EARLIER FILING DATE: 1997-03-01
8 <160> NUMBER OF SEQ ID NOS: 18
9 <170> SOFTWARE: PatentIn Ver. 2.0
10 <210> SEQ ID NO 1
11 <211> LENGTH: 23
12 <212> TYPE: PRT
13 <213> ORGANISM: Homo sapiens
14 <400> SEQUENCE: 1
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16 1 5 10 15
17 Leu Arg Leu Met Ser Thr Glu
18 20
19 <210> SEQ ID NO 2
20 <211> LENGTH: 23
21 <212> TYPE: PRT
22 <213> ORGANISM: Homo sapiens
23 <400> SEQUENCE: 2
24 Asn Val Glu Gly Val Thr Ser Lys Glu Met Ala Thr Gln Leu Ala Phe
25 1 5 10 15
26 Met Arg Leu Leu Ala Asn Tyr
27 20
28 <210> SEQ ID NO 3
29 <211> LENGTH: 23
30 <212> TYPE: PRT
31 <213> ORGANISM: Homo sapiens
32 <400> SEQUENCE: 3
33 Gly Asp Asp Asn Leu Ala Pro Asn Thr Ala Asn Val Gln Met Thr Phe
34 1 5 10 15
35 Leu Arg Leu Leu Ser Thr Glu
36 20
37 <210> SEQ ID NO 4
38 <211> LENGTH: 23
39 <212> TYPE: PRT
40 <213> ORGANISM: Homo sapiens
41 <400> SEQUENCE: 4
42 Gly Asn Pro Glu Leu Pro Glu Asp Val Leu Asp Val Gln Leu Ala Phe
43 1 5 10 15
44 Leu Arg Leu Leu Ser Ser Arg

Does Not Comply
Corrected Diskette Needed.

3

TC

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PAGE: 2

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/380,377DATE: 03/02/2000
TIME: 14:39:52

Input Set: I380377.RAW

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45                               20
46 <210> SEQ ID NO 5
47 <211> LENGTH: 22
48 <212> TYPE: PRT
49 <213> ORGANISM: Homo sapiens
50 <400> SEQUENCE: 5
51   Val Asp Ala Glu Gly Asn Pro Val Gly Val Val Gln Met Thr Phe Leu
52       1                   5                   10                   15
53   Arg Leu Leu Ser Ala Ser
54                               20
55 <210> SEQ ID NO 6
56 <211> LENGTH: 22
57 <212> TYPE: PRT
58 <213> ORGANISM: Homo sapiens
59 <400> SEQUENCE: 6
60   Gly Asp His Gln Ser Pro Asn Thr Ala Leu Thr Gln Met Thr Phe Leu
61       1                   5                   10                   15
62   Arg Leu Leu Ser Lys Glu
63                               20
64 <210> SEQ ID NO 7
65 <211> LENGTH: 22
66 <212> TYPE: PRT
67 <213> ORGANISM: Homo sapiens
68 <400> SEQUENCE: 7
69   Leu Asp Val Glu Gly Asn Ser Ile Asn Met Val Gln Met Thr Phe Leu
70       1                   5                   10                   15
71   Lys Leu Leu Thr Ala Ser
72                               20
73 <210> SEQ ID NO 8
74 <211> LENGTH: 22
75 <212> TYPE: PRT
76 <213> ORGANISM: Homo sapiens
77 <400> SEQUENCE: 8
78   Val Asp Ser Glu Gly Ser Pro Val Gly Val Val Gln Leu Thr Phe Leu
79       1                   5                   10                   15
80   Arg Leu Leu Ser Val Ser
81                               20
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83 <211> LENGTH: 20
84 <212> TYPE: DNA
85 <213> ORGANISM: Artificial Sequence
86 <220> FEATURE:
87 <223> OTHER INFORMATION: Description of Artificial Sequence: RECOMBINANT
88   PRIMER
89 <400> SEQUENCE: 9
90   agatggtcgc actggacatc
91 <210> SEQ ID NO 10
92 <211> LENGTH: 32
93 <212> TYPE: DNA
94 <213> ORGANISM: Artificial Sequence
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20

PAGE: 3

RAW SEQUENCE LISTING PATENT APPLICATION US/09/380,377

DATE: 03/02/2000
TIME: 14:39:52

Input Set: I380377.RAW

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95 <220> FEATURE:
96 <223> OTHER INFORMATION: Description of Artificial Sequence:RECOMBINANT
97 PRIMER
98 <400> SEQUENCE: 10
99      tcgcagggat ccgtcgggtca cttgcactgg tt                      32
100 <210> SEQ ID NO 11
101 <211> LENGTH: 21
102 <212> TYPE: DNA
103 <213> ORGANISM: Artificial Sequence
104 <220> FEATURE:
105 <223> OTHER INFORMATION: Description of Artificial Sequence:RECOMBINANT
106 PRIMER
107 <400> SEQUENCE: 11
108      aatggagctc ctggacccat g                                  21
109 <210> SEQ ID NO 12
110 <211> LENGTH: 32
111 <212> TYPE: DNA
112 <213> ORGANISM: Artificial Sequence
113 <220> FEATURE:
114 <223> OTHER INFORMATION: Description of Artificial Sequence:RECOMBINANT
115 PRIMER
116 <400> SEQUENCE: 12
117      ctgctaggta ccaaattggaa ggattcagct tt                      32
118 <210> SEQ ID NO 13
119 <211> LENGTH: 21
120 <212> TYPE: PRT
121 <213> ORGANISM: Homo sapiens
122 <400> SEQUENCE: 13
W--> 123      Gly Asn Pro Glu Leu Pro Glu Asp Val Leu Asp Val Xaa Xaa Xaa Xaa
124           1          5          10          15
W--> 125      Xaa Xaa Ser Ser Arg
126           20
127 <210> SEQ ID NO 14
128 <211> LENGTH: 22
129 <212> TYPE: PRT
130 <213> ORGANISM: Homo sapiens
131 <400> SEQUENCE: 14
W--> 132      Gly Asn Pro Glu Leu Pro Glu Asp Val Leu Asp Val Xaa Xaa Xaa Xaa
133           1          5          10          15
W--> 134      Xaa Xaa Xaa Ser Ser Arg
135           20
136 <210> SEQ ID NO 15
137 <211> LENGTH: 9
138 <212> TYPE: PRT
139 <213> ORGANISM: Homo sapiens
140 <400> SEQUENCE: 15
141      Gln Leu Ala Phe Leu Arg Leu Leu Leu
142           1          5
143 <210> SEQ ID NO 16
144 <211> LENGTH: 250

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Den 10

PAGE: 4

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/380,377

DATE: 03/02/2000
TIME: 14:39:52

Input Set: I380377.RAW

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145 <212> TYPE: PRT
146 <213> ORGANISM: Homo sapiens
147 <400> SEQUENCE: 16
148   Tyr Tyr Arg Ala Asp Asp Ala Asn Val Val Arg Asp Arg Asp Leu Glu
149       1           5           10           15
150   Val Asp Thr Thr Leu Lys Ser Leu Ser Gln Gln Ile Glu Asn Ile Arg
151           20           25           30
152   Ser Pro Glu Gly Ser Arg Lys Asn Pro Ala Arg Thr Cys Arg Asp Leu
153           35           40           45
154   Lys Met Cys His Ser Asp Trp Lys Ser Gly Glu Tyr Trp Ile Asp Pro
155           50           55           60
156   Asn Gln Gly Cys Asn Leu Asp Ala Ile Lys Val Phe Cys Asn Met Glu
157           65           70           75           80
158   Thr Gly Glu Thr Cys Val Tyr Pro Thr Gln Pro Ser Val Ala Gln Lys
159           85           90           95
160   Asn Trp Tyr Ile Ser Lys Asn Pro Lys Asp Lys Arg His Val Trp Phe
161           100          105          110
162   Gly Glu Ser Met Thr Asp Gly Phe Gln Phe Glu Tyr Gly Gly Gln Gly
163           115          120          125
164   Ser Asp Pro Ala Asp Val Ala Ile Gln Leu Thr Phe Leu Arg Leu Met
165           130          135          140
166   Ser Thr Glu Ala Ser Gln Asn Ile Thr Tyr His Cys Lys Asn Ser Val
167           145          150          155          160
168   Ala Tyr Met Asp Gln Gln Thr Gly Asn Leu Lys Lys Ala Leu Leu Leu
169           165          170          175
170   Lys Gly Ser Asn Glu Ile Glu Ile Arg Ala Glu Gly Asn Ser Arg Phe
171           180          185          190
172   Thr Tyr Ser Val Thr Val Asp Gly Cys Thr Ser His Thr Gly Ala Trp
173           195          200          205
174   Gly Lys Thr Val Ile Glu Tyr Lys Thr Thr Lys Thr Ser Arg Leu Pro
175           210          215          220
176   Ile Ile Asp Val Ala Pro Leu Asp Val Gly Ala Pro Asp Gln Glu Phe
177           225          230          235          240
178   Gly Phe Asp Val Gly Pro Val Cys Phe Leu
179           245          250

180 <210> SEQ ID NO 17
181 <211> LENGTH: 251
182 <212> TYPE: PRT
183 <213> ORGANISM: Homo sapiens
184 <400> SEQUENCE: 17
185   Phe Tyr Arg Ala Asp Gln Pro Arg Ser Ala Pro Ser Leu Arg Pro Lys
186       1           5           10           15
187   Asp Tyr Glu Val Asp Ala Thr Leu Lys Ser Leu Asn Asn Gln Ile Glu
188           20           25           30
189   Thr Leu Leu Thr Pro Glu Gly Ser Arg Lys Asn Pro Ala Arg Thr Cys
190           35           40           45
191   Arg Asp Leu Arg Leu Ser His Pro Glu Trp Ser Ser Gly Tyr Tyr Trp
192           50           55           60
193   Ile Asp Pro Asn Gln Gly Cys Thr Met Glu Ala Ile Lys Val Tyr Cys
194           65           70           75           80

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PAGE: 5

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/380,377

 DATE: 03/02/2000
 TIME: 14:39:52

Input Set: I380377.RAW

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195   Asp Phe Pro Thr Gly Glu Thr Cys Ile Arg Ala Gln Pro Glu Asn Ile
196                               85                               90                               95
197   Pro Ala Lys Asn Trp Tyr Arg Ser Ser Lys Asp Lys Lys His Val Trp
198                               100                              105                              110
199   Leu Gly Glu Thr Ile Asn Ala Gly Ser Gln Phe Glu Tyr Asn Val Glu
200                               115                              120                              125
201   Gly Val Thr Ser Lys Glu Met Ala Thr Gln Leu Ala Phe Met Arg Leu
202                               130                              135                              140
203   Leu Ala Asn Tyr Ala Ser Gln Asn Ile Thr Tyr His Cys Lys Asn Ser
204                               145                              150                              155                              160
205   Ile Ala Tyr Met Asp Glu Glu Thr Gly Asn Leu Lys Lys Ala Val Ile
206                               165                              170                              175
207   Leu Gln Gly Ser Asn Asp Val Glu Leu Val Ala Glu Gly Asn Ser Arg
208                               180                              185                              190
209   Phe Thr Tyr Thr Val Leu Val Asp Gly Cys Ser Lys Lys Thr Asn Glu
210                               195                              200                              205
211   Trp Gly Lys Thr Ile Ile Glu Tyr Lys Thr Asn Lys Pro Ser Arg Leu
212                               210                              215                              220
213   Pro Phe Leu Asp Ile Ala Pro Leu Asp Ile Gly Gly Ala Asp His Glu
214                               225                              230                              235                              240
215   Phe Phe Val Asp Ile Gly Pro Val Cys Phe Lys
216                               245                              250

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<210> SEQ ID NO 18

<211> LENGTH: 248

<212> TYPE: PRT

<213> ORGANISM: Homo sapiens

<400> SEQUENCE: 18

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222   Tyr Tyr Gly Asp Glu Pro Met Asp Phe Lys Ile Asn Thr Asp Glu Ile
223       1               5               10               15
224   Met Thr Ser Leu Lys Ser Val Asn Gly Gln Ile Glu Ser Leu Ile Ser
225               20               25               30
226   Pro Asp Gly Ser Arg Lys Asn Pro Ala Arg Asn Cys Arg Asp Leu Lys
227               35               40               45
228   Phe Cys His Pro Glu Leu Lys Ser Gly Glu Tyr Trp Val Asp Pro Asn
229               50               55               60
230   Gln Gly Cys Lys Leu Asp Ala Ile Lys Val Phe Cys Asn Met Glu Thr
231               65               70               75               80
232   Gly Glu Thr Cys Ile Ser Ala Asn Pro Leu Asn Val Pro Arg Lys His
233               85               90               95
234   Trp Trp Thr Asp Ser Ser Ala Glu Lys Lys His Val Trp Phe Gly Glu
235               100              105              110
236   Ser Met Asp Gly Gly Phe Gln Phe Ser Tyr Gly Asn Pro Glu Leu Pro
237               115              120              125
238   Glu Asp Val Leu Asp Val Gln Leu Ala Phe Leu Arg Leu Leu Ser Ser
239               130              135              140
240   Arg Ala Ser Gln Asn Ile Thr Tyr His Cys Lys Asn Ser Ile Ala Tyr
241               145              150              155              160
242   Met Asp Gln Ala Ser Gly Asn Val Lys Lys Ala Leu Lys Leu Met Gly
243               165              170              175
244   Ser Asn Glu Gly Glu Phe Lys Ala Glu Gly Asn Ser Lys Phe Thr Tyr

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VERIFICATION SUMMARY
PATENT APPLICATION US/09/380,377DATE: 03/02/2000
TIME: 14:39:52

Input Set: I380377.RAW

Line	? Error/Warning	Original Text
123	W "N" or "Xaa" used: Feature required	Gly Asn Pro Glu Leu Pro Glu Asp Val Leu A
125	W "N" or "Xaa" used: Feature required	Xaa Xaa Ser Ser Arg
132	W "N" or "Xaa" used: Feature required	Gly Asn Pro Glu Leu Pro Glu Asp Val Leu A
134	W "N" or "Xaa" used: Feature required	Xaa Xaa Xaa Ser Ser Arg